

Product Type	Auto-Pointing Model				Auto-Tracking Model			
	SX-101P	SX-102P	SX-103P	SX-105P	SX-101T	SX-102T	SX-103T	SX-105T
Model								
<b>Auto-Tracking / Auto-Pointing</b>								
Auto-Tracking	-	-	-	-	●	●	●	●
Auto-Pointing	●	●	●	●	●	●	●	●
Rotation speed / Auto Tracking speed	85°/sec (at 20°C) / 20°/sec							
Operating range	ATP1/ATP1S 360° Prism: 2m to 600m (6.6 to 1,969ft.), CP01 mini prism: 1.3 to 700m (4.3 to 2,297ft.), OR1PA mini prism: 1.3 to 500m (4.3 to 1,640ft.), AP prism: 1.3m to 1,000m (4.3 to 3,281ft.)							
<b>Angle Measurement</b>	Rotary absolute encoder scanning.							
Minimum Reading	0.5"/1"		1"/5"		0.5"/1"		1"/5"	
Angle Measurement	1"	2"	3"	5"	1"	2"	3"	5"
Tilt Compensation	Dual Axis, Compensation Range: ±6'							
<b>Distance Measurement</b>								
Prism	Measuring Range: ATP1/ATP1S 360° Prism: 1.3m to 1,000m (4.3 to 3,281ft.), CP01 mini prism: 1.3 to 2,500m (4.3 to 8,200ft.), OR1PA mini prism: 1.3 to 500m (4.3 to 1,640ft.), AP prism: 1.3m to 6,000m (4.3 to 19,685ft.) under good conditions*1							
	Accuracy: ±(1.5mm + 2ppm x D)mm (D=measuring distance in mm)							
Reflective sheet target	Measuring Range*3: 1.3m to 500m (4.3 to 1,640ft.) with RS90N-K reflecting sheet							
	Accuracy*3: ±(2mm + 2ppm x D)mm							
Reflectorless	Measuring Range*2: 0.3m to 1,000m (1 to 3,281ft.) under good conditions*1							
	Accuracy*2: ±(2mm + 2ppm x D)mm							
<b>Interface and Data management</b>								
Operating System / Processor	Windows® Embedded CE.6.0							
Display	3.5 inch / Transmissive TFT QVGA color LCD							
Memory	500MB internal memory, USB flash memory (up to 8GB)							
Interface	USB2.0 (Type A/mini B) / RS-232C							
<b>Wireless Communication</b>								
Bluetooth® Class 1,	Communication range: 600m (1,969ft.)*4							
<b>General</b>								
Dust/Water Protection	IP65 (IEC 60529:2001)							
Operating Temperature	-20°C to +50°C							
Laser Pointer	Coaxial red laser pointer using EDM measuring beam, Class 3R laser							
Guide light	Green and Red LED, Working range: 1.3m to 150m (4.3 to 492ft.)							
Size	W230 x D207 x H393mm (W9.1 x D8.2 x H15.5in.)							
Weight	Approx. 6.9kg (15.2 lb.)							
<b>Power Supply</b>								
BDC70 standard battery	7.2V, 5.2Ah							
Operating time	Approx. 4 hours*5							
Signal source / Laser output	Red laser diode (690nm) / Reflectorless mode: Class 3R, Prism / Sheet mode: Class 1 equivalent							

RC-PR5 Remote Control System (Optional of Auto-Collimating Model)	
Operating range (slope distance)	Far mode: 2m to 300m (6.6 to 984ft.) / Standard mode: 2m to 100m (6.6 to 328ft.)
Measuring time	15 sec

\*1 Condition 1: No haze with visibility about 40km, overcast with no heat shimmer.  
 \*2 Fine mode. With Kodak Gray Card White Side (90% reflective). When brightness on measured surface is 30,000 lx. or less. Reflectorless range/accuracy may vary according to measuring objects, observation situations and environmental conditions.  
 \*3 When the measuring beam's incidence angle is within 30° in relation to the reflective sheet target.  
 \*4 Wireless communication range may vary depending on obstruction and other environmental conditions.  
 \*5 In continuous face-1 and face-2 observations by using Auto-Collimating.

**Standard Accessories**

- SX main unit ●Battery (BDC70)
- Battery charger (CDC68)
- Power Cable ●Lens cap ●Lens hood
- Tool pouch ●Screwdriver
- Lens brush ●Adjusting pin x2
- Cleaning cloth ●Operation manual
- USB memory ●Laser caution sign-board
- Carrying case ●Carrying strap



- Windows® is a registered trademark of Microsoft Corporation in the United States and other countries.  
 - Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Topcon is under license.  
 - Other trademarks and trade names are those of their respective owners.  
 - Designs and specifications are subject to change without notice.  
 - Product colors in this brochure may vary slightly from those of the actual products owing to limitations of the printing process.

**Your local Authorized Dealer is:**



**TOPCON CORPORATION**  
 75-1 Hasunuma-cho, Itabashi-ku, Tokyo 174-8580, Japan  
 Phone: (+81)3-3558-2993 Fax: (+81)3-3960-4214  
 www.topcon.co.jp

**<Contact to>**

**Sokkia Singapore Positioning Sales Pte. Ltd.**  
 60 Alexandra Terrace, #08-27 The Comtech, Singapore 118502  
 Phone: (+65)6479-3966 Fax: (+65)6479-4966  
 Email: sales@sokkia.com.sg  
 Web: www.sokkia.com.sg/

Specifications subject to change without notice  
 ©2012 Topcon Corporation All rights reserved.



**SX Series**  
 Superior X-ellence Station

**Automatic Precision**

- Superior Auto-Pointing Technology
- Advanced Angle Measurement System
- RED-tech Technology Reflectorless EDM
- LongRange Data Communication
- Waterproof, Rugged, and User Friendly Operation
- MAGNET™ Field On-Board Application Software





# Rapidly Points. Accurately Measures.

## ■ Superior Auto-Pointing Technology



Incorporating cutting-edge laser and image processing technologies, the SX provides extremely reliable auto-pointing capability. Even in dense woods or in dim conditions, the SX rapidly finds a prism and accurately measures its position, ensuring maximum work efficiency under all job site environments. The SX provides a wide auto-pointing range from 1.3m to 1,000m with a standard prism.



### ● Simple and Easy

Point the SX in the general direction of the prism, press the trigger key, and the SX automatically points to the prism center. This enables even a beginner to rapidly take accurate measurements.

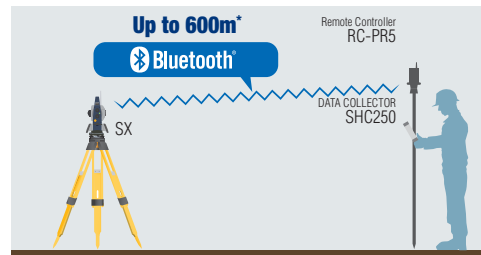
### ● Faster, Less Effort

By eliminating the need for the focusing telescope and adjusting fine motion screws, the SRX dramatically increases survey speed.

SX Auto-Pointing Model	Rough Aiming	Auto-Pointing - Measure	Record Data	1/2 the Steps!		
	Manual Total Station	Rough Aiming	Focus	Adjust Hz	Adjust V	Measure

## ■ Auto-Tracking Model feature

### ● LongRange Data Communication

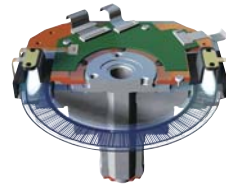


- The SX series of total stations features Bluetooth® Class1 wireless technology for reliable data communications.
- All SX data is instantly available at the Bluetooth-equipped controller.

\* Wireless communication range may vary depending on obstruction and other environmental conditions.

## ■ Advanced Angle Measurement System

- SX features SOKKIA's original absolute encoders that provide long-term reliability in any job site condition. Dual-axis compensator ensures stable measurements even when setup on uneven terrain.



- SX-101 and 102 feature groundbreaking IACS (Independent Angle Calibration System) technology for extremely reliable angle measurements.

## ■ RED-tech Technology Reflectorless EDM

- Fast distance measurement of 0.9s regardless of object.
- SOKKIA traditional pinpoint precision in reflectorless distance measurement.
- Reflectorless operation from 30cm to 800m.
- Coaxial EDM beam and laser-pointer provide fast and accurate aiming.
- Ensures accuracy even with reflective sheets.

### ● Ultra-Narrow Laser Beam

Ultra-narrow red laser beam is also used for the laser pointer, ensuring exceptional pinpoint precision in reflectorless measurement.

### Measuring beam spot size (reflectorless mode)

Distance	10m (33ft.)	40m (131ft.)	100m (328ft.)	300m (984ft.)	500m (1,640ft.)
Beam spot size (height x width)	7 x 9mm (0.28 x 0.35in.)	14 x 14mm (0.55 x 0.55in.)	29 x 24mm (1.14 x 0.94in.)	76 x 56mm (2.99 x 2.2in.)	123 x 89mm (4.84 x 3.5in.)



### ● RC-PR5 Remote Control System

The RC-PR5 On-Demand Remote allows for rapid prism search regardless of your position. A built-in directional sensor constantly monitors the prism movement so the SX can turn left or right whichever direction is closer.

### ● Precision 360° Prisms

Advanced 6-prism configuration provides unsurpassed measurement precision due to a minimum offset of each prism center. ATP1 fits a range pole; ATP1S sliding prism is designed for a pin pole.



ATP1 360° Prism



ATP1S sliding prism

## ■ Waterproof, Rugged, and Operator Friendly

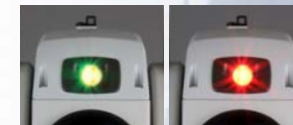
- IP65 dustproof / waterproof rating.
- Metal chassis and heavy duty handle.
- Standard usage temperature range -20 to +50°C.



- New star key [★] instantly brings up functions.
- Trigger key lets you take a series of measurements without taking your eye off the telescope.
- Control panel consists of 10-key board with color LCD touch screen display.
- USB type A / mini B as well as serial ports.



- Green / Red telescope guide lights provide efficient guidance in a range up to 150m.



## ■ MAGNET™

### ● Cloud-based Solutions for Precise Positioning

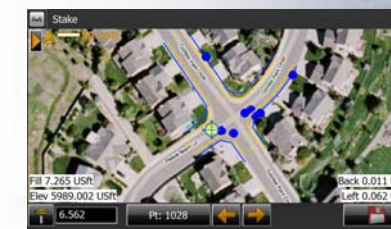
MAGNET™ is a software family that uses the "cloud" to seamlessly connect the field and office for data exchange, communications, asset tracking and more.. Real-time connections. When you need it. Where you need it.

### ● MAGNET™ Field

Data collection, stakeout, roads, and coordinate geometry.



MAGNET™  
Field



**SX Series**  
Superior X-ellence Station

